

Acupuncture in Western Terms

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Can Western science support a 2,000-year-old Eastern medical system whose principles predate any real knowledge of anatomy or physiology, to say nothing of modern diagnostics and therapeutics—or even the germ theory of disease? That question continues to be asked regardless of the fact that an estimated 1 million Americans now undergo **acupuncture** annually for various ailments.

In doing so, they are participating in a medical tradition founded on the opposing concepts of yin and yang and energy flow through channels or meridians, with disease being a manifestation of disturbances in this flow. The fundamental energy force in traditional Chinese medicine is *qi*, which protects, nourishes, and animates. *Wei qi* is defensive energy that surrounds the body like a protective shield and prevents pathogens and toxins from penetrating to the organs. This is what we know today as the immune system.

Zhon qi is nourishing energy. This encompasses the circulatory, digestive, and respiratory systems. *Yuan qi* is ancestral, inherited energy expressed through growth, development, reproduction, and senescence. It refers to what we now consider the genetic component of life, our DNA.

This was quite an advanced system of thinking for its time, but this is the 21st century and if **acupuncture** is to be accepted into wider contemporary medical practice, it must stand up to scrutiny in the harsher light of evidence-based medicine.

Accordingly, the National Institutes of Health established a consensus panel that evaluated the state of knowledge and experience about **acupuncture** and found "clear evidence" for its efficacy in postoperative and chemotherapy-induced nausea and vomiting and some benefit in a number of other conditions such as tennis elbow and menstrual cramps.

Although the efficacy of **acupuncture** can be difficult to assess because of the lack of standardization of practices, one systematic review on its antiemesis effects included only controlled trials in which a single **acupuncture** point, P6, was stimulated (J. R. Soc. Med. 89[6]:303-11, 1996). The author identified 29 trials in which P6 stimulation was performed in patients with nausea associated with pregnancy, chemotherapy, or surgery; in 27 of them P6 stimulation was statistically superior to sham **acupuncture**.

And just this past December a randomized controlled clinical trial of **acupuncture** for a group of 104 women with breast cancer undergoing chemotherapy found that those who were given **acupuncture** along with standard antiemetic pharmacotherapy experienced significantly fewer episodes of nausea during a 5-day study period (JAMA 284[21]:2755-61, 2000).

Critics also question how the insertion of needles into points along "meridians" that do not correlate to any bodily system could possibly have distant or systemic effects.

We now know that inserting needles into the skin and then manipulating them or using high- or low-intensity electrical stimulation results in a number of physiologic events: stimulation of small myelinated type II and III afferent nerve fibers; release of beta-endorphins and neurotransmitters such as serotonin and substance P; and activation of the dorsal horn nuclei at the spinal cord level, the brain stem level, and the hypothalamic-pituitary level.

Clearly, **acupuncture** deserves a place in contemporary Western medicine.